

Alessandro RAVEANE, PhD

GENERAL INFORMATION

DATE OF BIRTH: 17th March 1990
ADDRESS: via dell'Usignolo 1, 20147, Milan, Italy
PHONE: +39 331 3461048
EMAIL: alessandro.raveane@gmail.com
NATIONALITY: Italian
SCOPUS: <https://www.scopus.com/authid/detail.uri?authorId=57077021100>

QUALIFICATIONS

9th JUNE 2023 **National Scientific Qualification (ASN)** for Associate Professor (II fascia) in Genetics (05/I1)

12th DECEMBER 2019 **Qualification to the Profession of Biologist**

2015-2019 **"Cultore di materia"** for teaching Genetics (SSD BIO/18, University of Pavia) and **examination committee member** for Genetics in "Biological Science" and "Science and Technology for Nature" degrees, University of Pavia. (A.A. 2015/2016 - 2016/2017 - 2017/2018 - 2018/2019)

RESEARCH EXPERIENCES

APRIL 2026 - ONGOING | **Ricercatore a Tempo Determinato in Tenure Track**
University of Pavia, Pavia, Italy

- Coordination of population genomics projects, including data generation and analysis.
- Analysis of evolutionary genomics through integration of archaeogenomic and immunological RNA-seq data.

APRIL 2026 - ONGOING | **Visiting scientist**
Human Technopole, Milan, Italy

- Contribution to large-scale international consortia (e.g., Genomes of Europe).
- Contribution and co-leadership in multi-omics analysis of large-scale human population datasets (Cardinal project).

SEPT 2023 - ONGOING | **Contingent Worker - Postdoctoral Fellow**
Wellcome Sanger Institute, Hinxton, UK

- Analysis of single-cell RNA-seq and genomic data from large PBMC resources.

FEB 2022 - MARCH 2026 | **Post-doctoral Fellow**
Human Technopole, Milan, Italy

- Coordination of long-read sequencing efforts within the Human Pangenome Reference Consortium (HPRC).
- Coordination of the Genomes of Italy project, including recruitment, compliance, sampling, and sequencing (~2,000 individuals).
- Contribution to Genome of Europe consortium activities.
- Development of machine learning approaches to summarize global human genetic structure.
- Analysis of evolutionary genomics integrating ancient DNA and transcriptomic data.

NOV 2019 - FEB 2022 | **Post-doctoral Researcher**
IEO - European Institute of Oncology, Milan, Italy

- Supervision and coordination of projects on single-cell RNA-seq data in murine models and patient cohorts.
- Supervision of junior researchers in computational genomics.
- Development and application of computational approaches for Y chromosome analysis.

NOV 2017 - NOV 2019 | **Post-doctoral Researcher**

Dept. of Biology and Biotechnology, University of Pavia, Italy

- Development of bioinformatic pipelines for phylogenetic analysis of mtDNA and Y chromosome WGS data.
- Analysis of population and archaeogenomic data to infer demographic history.

OCT 2014 - JAN 2018

PhD Student in Genetics, Molecular and Cellular Biology
University of Pavia, Italy (incl. University of Oxford, UK)

- Analysis of genome-wide data and demographic inference in human populations.
- Phylogenetic analysis of Y chromosome WGS data.
- Integration of wet-lab and computational approaches.
- Development of sequencing workflows and library preparation.

JAN 2016 - JUL 2017

Academic Visitor
University of Oxford, UK

- Development and application of computational approaches for population genomics and ancient DNA analysis.

OCT 2011 - OCT 2014

Undergraduate Researcher
University of Pavia, Italy

- Training in wet-lab techniques for phylogenetic analysis of mtDNA and Y chromosome markers.
- Development of foundational bioinformatic skills for short-read sequencing data processing.

EDUCATION

JANUARY 2018

PhD in Genetics and Cellular Biology (XXX cycle)

University of Pavia, Italy
with honor

Thesis: "Human genetic history 2.0: Y-chromosome NGS in South American populations, genome-wide haplotype analysis in Italian populations".

Advisor: Prof. Ornella SEMINO
Co-Advisor: Prof. Cristian CAPELLI

OCTOBER 2014

Master Degree in Molecular Genetics and Biology

University of Pavia, Italy
110/110 cum laude

Thesis: "The origin of modern Panamanians: the Y-chromosome perspective".

Advisor: Prof. Ornella SEMINO
Co-Advisor: Dr. Viola GRUGNI

NOVEMBER 2012

Bachelor Degree in Biological Science

University of Pavia, Italy
107/110

Thesis: "Characterization of the haplogroup R1b-M269 in Sardinia".

Advisor: Prof. Ornella SEMINO
Co-Advisor: Dr. Viola GRUGNI

COURSES ATTENDED

- 12-13 NOVEMBER 2020 **Course: Containerization in High Performing Computing (HPC)**
HPC Department, CINECA, Milan, Italy
- 21-27 APRIL 2018 **ELIXIR Practical Course “Population Genomics: background and tools”**
Consiglio Nazionale Ricerche (CNR), Naples, Italy
- 12-14 JULY 2017 **Course: Python for Bioinformatics**
Centre for Health Technologies, University of Pavia, Italy
- 29 NOVEMBER 2005 **European Computing Driving Licence (ECDL)**
Liceo Scientifico A. Avogadro, Biella, Italy

TEACHING EXPERIENCES

- 2024-2025 **Lecture and supervision of the variant calling and assembly analyses in modern and ancient human populations**
Internal Training Course: "Methods to Genomics Variant Calling", Human Technopole, 4 hours.
- 2023-2024 **Lecture of Pangenomes for human population genetics and evolutionary studies**
Advanced Course entitled: "Bioinformatics for genome and pangenome assembly, analysis and visualization", PhD Program in Genetics, Molecular and Cellular Biology. University of Pavia, 1 hour.
- 2023-2024 **Lectures of Genetics and Human Biology (L-32)**
Science and Technology for Nature degree, University of Pavia, 3 hours.
- 2022-2023 **Lectures of Genetics and Human Biology (L-32)**
Science and Technology for Nature degree, University of Pavia, 3 hours.
- 2021-2022 **Lectures of Genetics and Human Biology (L-32)**
Science and Technology for Nature degree, University of Pavia, 5 hours.
- 2019-2020 **Lectures of Genetics and Human Biology (L-32)**
Science and Technology for Nature degree, University of Pavia, 4 hours.
- 2018-2019 **Lectures of Genetics and Human Biology (L-32)**
Science and Technology for Nature degree, University of Pavia, 4 hours.
- 2018-2019 **Lectures of Human and Cancer Genetics**
Master of II level (2018-2020 edition) in "Medical Statistics and Genomics", Dept. of Brain and Behavioural Science, University of Pavia, 7 hours.
- 2017 **Lectures of Human and Cancer Genetics**
Master of II level (2016-2018 edition) in "Medical Statistics and Genomics", Dept. of Brain and Behavioural Science, University of Pavia, 8 hours.
- 2018-2019 **Practical lectures of Genetics (FONDI ATENEO)**
Biological Science degree, Department of Biology and Biotechnology, University of Pavia, Italy, 25 hours.
- 2017-2018 **Practical lectures of Genetics (FONDI ATENEO)**
Biological Science degree, Department of Biology and Biotechnology, University of Pavia, Italy, 25 hours.
- 2016-2017 **Practical lectures of Genetics (FONDI ATENEO)**
Biological Science degree, Department of Biology and Biotechnology, University of Pavia, Italy, 30 hours.
- 2015-2016 **Practical lectures of Genetics (FONDI MIUR)**
Biological Science degree, Department of Biology and Biotechnology, University of Pavia, Italy, 30 hours.
- 2014-2015 **Practical lectures of Genetics (FONDI MIUR)**
Science and Technology for Nature degree, University of Pavia, 30 hours.

SUPERVISION ACTIVITIES

- 2024-2025 **Co-supervision of the master thesis work**
Human Technopole and University of Padua
Student Name: Elia Tisio
Project title: Application of spherical variational autoencoders to human population genetic structure.
- 2022-
CURRENT **Co-supervision of a SEMM (European School of Molecular Medicine) PhD Student**
Human Technopole
Student Name: Andrei Cristea
Project title: Population-scale single-cell RNA profiling of the immune system landscape in aging.
- 2020-2021 **Supervision of the master thesis work**
European Institute of Oncology
Student Name: Laura Carpen
Title of the thesis: A single-cell RNA atlas of immune cells in the microenvironment of murine triple negative breast cancer model treated with immuno- and chemotherapies.
- 2019-2020 **Supervision of the master thesis work**
University of Pavia
Student Name: Luca Traverso
Title of the thesis: Phylogenetic analysis of modern and ancient Native Americans' Y chromosome sequences.
- 2018-2019 **Supervision of the master thesis work**
University of Pavia
Student Name: Giulia Colombo
Title of the thesis: Reconstructing the pre-Columbian genomic history of Native Americans: new insights from a genome-wide analysis of modern indigenous Panamanians.
- 2018-2019 **Supervision of the bachelor thesis work**
University of Pavia
Student Name: Giacomo Mutti
Title of the thesis: Analisi filogenetica ed evolutiva della proteina Tiroxil-DNA Fosfodiesterasi 1 (TDP1) nel regno vegetale.
- 2018-2019 **Supervision of the bachelor thesis work**
University of Pavia
Student Name: Sara Soffiati
Title of the thesis: Analisi della variabilità del cromosoma Y umano in campioni della popolazione panamense.
- 2017-2018 **Supervision of the bachelor thesis work**
University of Pavia
Student Name: Marta Freschi
Title of the thesis: Analisi della variabilità del cromosoma Y in un campione di popolazione albanese di Calabria (Arbëreshë).
- 2017-2018 **Supervision of the bachelor thesis work**
University of Pavia
Student Name: Sofia de Girolamo
Title of the thesis: Analisi della variabilità del cromosoma Y in campioni di popolazione dell'Italia centrale.

NATIONAL AND INTERNATIONAL RESEARCH ACTIVITIES

- 2025-ONGOING Member of the Genomes of Europe (GoE) Consortium**
Human Technopole, Milan, Italy
Details: Contributed to the initial human population structure analyses for this consortium, which aims to build a collective reference genome of European citizens for personalized medicine and health approaches.
Collaborators: Dr. Anthony Herzig (Inserm, Brest, France), Prof. Astrid M. Vicente (Instituto nacional de Saúde Doutor Ricardo Jorge, Lisbon, Portugal), Dr. Hugo Martiniano (Instituto nacional de Saúde Doutor Ricardo Jorge, Lisbon, Portugal) as WP6 leads in the GoE consortium.
- 2023-ONGOING Member of the Anthropogen Meta-Research Unit**
Human Technopole, Milan, Italy | University of Padua | University of Parma | University of Bari | University of Turin
Details: A collaborative research unit spanning multiple Italian universities and research centers, fostering a shared community of skills, expertise, and mentoring in molecular anthropology and population genomics.
Collaborators: Prof. Luca Pagani (University of Padua), Prof. Massimo Mezzavilla (University of Padua), Prof. Cristian Capelli (University of Parma), Dr. Serena Aneli (University of Turin), Dr. Francesco Montinaro (University of Bari), Dr. Davide Marnetto (University of Turin)
- 2023-ONGOING Member of the Expression Quantitative Trait Loci (eQTL) Club**
Wellcome Sanger Institute, Hinxton, UK
Details: This club aims to facilitate scientific discussion and collaboration, helping trainees understand recent developments in mapping and interpreting eQTLs at the population level.
Collaborators: Over 40 researchers from the Wellcome Sanger Institute, UK.
- 2022-ONGOING Leading Long-Read Sequencing and Assembly Efforts (HPRC)**
Human Technopole, Milan, Italy
Details: Led the sequencing and analysis of four Italian cell lines for the Human Pangenome Reference Consortium (HPRC), establishing the first Italian collaboration to build a pangenome representing global human genomic variation.
Collaborators: Prof. Karen Miga (University of California Santa Cruz, US) and the HPRC Consortium.
- 2022-ONGOING Leading Pangenome Applications**
Human Technopole, Milan, Italy | University of California, Berkeley, US
Details: Developed and applied computational methods to genotype short-read sequencing data by leveraging pangenome variability in modern and ancient reference datasets.
Collaborators: Peter Sudmant (University of California, Berkeley, US) and Erik Garrison (University of Tennessee, Memphis, US).
- 2022-ONGOING Co-Coordinator of the Genomes of Italy Project**
Human Technopole, Milan, Italy
Details: Co-coordinated the generation and analysis of high-coverage short-read sequences from about 2,000 Italian individuals recruited from all 110 Italian provinces.
Collaborators: Over 10 Italian universities and leading experts in population genomics in Italy.
- 2022-ONGOING Co-Scientific Lead for the Cardinal Project**
Wellcome Sanger Institute, UK | Human Technopole, Italy | German Cancer Research Center (DKFZ), Germany | Helmholtz Munich, Germany
Details: Co-led data analysis for a large-scale single-cell RNA sequencing dataset from the peripheral blood mononuclear cells of over 5,000 donors to understand the molecular basis of gene expression in the immune system.
Collaborators: Over 40 researchers from the Cardinal Project Consortium.
- 2022-2024 Technical Advisor for Papio Y-Chromosome Phylogenetics**
University of Parma, Italy
Details: Advised on the analysis of WGS data to unveil the phylogenetic relationships of the Papio baboon species.

Collaborators: Prof. Cristian Capelli (University of Parma, Italy).

- 2020-2022 **Leading Phylogenetic Analyses of Plant Genes**
University of Pavia, Italy
Details: Led phylogenetic analyses of genes important for various biotechnological applications.
Collaborators: Prof. Anca Macovei (University of Pavia, Italy) and Prof. Alma Balestrazzi (University of Pavia, Italy).
- 2019-2022 **Leading Transcriptomic Analyses of Tumor Tissues**
European Institute of Oncology, Milan, Italy
Details: Supervised, analyzed, and developed bioinformatic pipelines for the analysis of scRNA-seq data from murine models and patients.
Collaborators: Prof. Francesco Bertolini (European Institute of Oncology, Italy) and Prof. Walter Longo (IFOM, Milan, Italy).
- 2019-2021 **Leading Ancient DNA and mtDNA Phylogenesis Projects**
University of Pavia, Italy | Institute of Molecular Pathology and Immunology of the University of Porto, Portugal
Details: Provided computational supervision and analysis for projects projecting the genetic variability of ancient DNA samples onto modern populations.
Collaborators: Prof. Antonio Torroni, Prof. Ornella Semino, Prof. Alessandro Achilli, and Prof. Anna Olivieri (University of Pavia, Italy); Dr. Veronica Fernandes (Institute of Molecular Pathology and Immunology of the University of Porto, Portugal).
- 2016-2022 **Leading Population Genetic Analyses of the Italian Population**
University of Pavia, Italy | University of Oxford, UK
Details: Performed population genetic analysis of samples genotyped with genome-wide arrays from all 20 Italian regions, comparing their variability with ancient and worldwide samples.
Collaborators: More than 30 international and Italian institutes.
- 2015-2022 **Leading Worldwide Y-Chromosome Phylogenesis Projects**
University of Pavia, Italy
Details: Explored genetic variability in worldwide human populations through the phylogenetic analysis of the Y chromosome.
Collaborators: Prof. Ornella Semino (University of Pavia, Italy).

ORGANISATION OF INTERNATIONAL CONFERENCES

2025 SMBE2025, Beijing, China

Organiser of the symposium "Pangenome graphs and their applications in biodiversity genomics"

2024 SMBE2024, Puerto Vallarta, Mexico

Organiser of the symposium "Human genetic variability in the Pangenomic era"

PROFESSIONAL SOCIETIE MEMBERSHIPS

2025 Associazione Genetica Italiana (AGI)

2025 Joint American Society Human Genetics

2025 European Society of Human Genetics

2025 Society of Molecular Biology and Evolution (SMBE)

2024 Society of Molecular Biology and Evolution (SMBE)

2023 Associazione Genetica Italiana (AGI)

FUNDED PROJECTS AND AWARDS

2025 **Young Investigator Attendance Award Annual Meeting SMBE2025 Beijing, China.**

2022-2023 **PRIN Bando 2022** (head of the sub-unit at Human Technopole, Milan, Italy)

Title of the project: iTAGC: iTalian ArchaeoGenomiCs in the peninsula's "heart" (PI: Alessandro Achilli, *University of Pavia, Italy*).

2021-2022 **The Leakey Foundation's Research Grant** (applicant member)

Title of the project: The Y chromosome evolutionary history of Papio (PI: Prof. C. Capelli, *University of Parma, Italy*).

2016-2017 Winner of three **mobility scholarships** provided for PhD student by the *University of Pavia, Italy*.

MAJOR RESEARCH INITIATIVES

2024-2025 **ERC Starting Grant**

Title of the project: ANcient Immunity from Modern European genomics (ANIME) (PI: Alessandro Raveane, *University of Pavia, Italy*).

Details: This project although not being funded has received a final panel score B which refers to high quality research.

EDITORIAL ASSIGNMENTS

Member of the editorial board

(Evolutionary and Population Genetics section): - *Frontiers in Genetics* [IF: 2.88].

- *Frontiers in Ecology and Evolution* [IF: 2.6].

PEER REVIEW

Scientific journals: - *Genome Biology* [IF: 9.4]

- *Nature Communications* [IF: 15.7]

- *Human Genetics* [IF: 3.6]

- *Frontiers in Genetics* [IF: 2.88]

- *iScience* [IF: 4.1]

- *Gene* (Elsevier) [IF: 2.4]

- *PLoS ONE* [IF: 2.6]

RESEARCH ARTICLES WITH IMPACT FACTOR AND CITATIONS

H-INDEX: 14 (SCOPUS), 16 (GOOGLE SCHOLAR)

CITATIONS: 592 (SCOPUS), 890 (GOOGLE SCHOLAR)

1. Colombo, G., E. Moroni, A. Raveane, N. Rambaldi Migliore, V. Agostini, R. Di Gerlando, C. Fiorini, L. Caporali, F. Gandini & E. Raimondi. **The origin of modern North Africans as depicted by a massive survey of mitogenomes.** *Scientific Reports* 15, 27025 (2025) [IF: 3.9; IF at the year of publication: 3.9, cited by: 0]
2. de Gennaro, L., L. Molinaro, A. Raveane, F. Santonastaso, S. S. Saponetti, M. C. Massi, L. Pagani, M. Metspalu, G. Hellenthal, T. Kivisild, M. Ventura & F. Montinaro. **PANE: fast and reliable ancestral reconstruction on ancient genotype data with non-negative least square and principal component analysis.** *Genome Biology* 26, 29 (Feb. 11, 2025) [IF: 9.4, IF at the year of publication: 9.4, cited by: 1]
3. Talarico, G., A. Franceschini, A. Raveane, P. Falvo, S. Mazzara, F. Melle, G. Motta, S. Orecchioni, A. Tenore, G. Gregato, C. Poletti, R. Chiarle, S. Pileri, P. Mancuso & F. Bertolini. **HSP and CD279 gene expression as candidate biomarkers in symptomatic LGLL patients.** *Discover Oncology* 15, 764 (Dec. 18, 2024) [IF: 2.9, IF at the year of publication: 2.9, cited by: 1]
4. Bolognini*, D., A. Halgren*, R. N. Lou*, A. Raveane*, J. L. Rocha*, A. Guarracino, N. Soranzo, C.-S. Chin, E. Garrison & P. H. Sudmant. **Recurrent evolution and selection shape structural diversity at the amylase locus.** *Nature*, 1-9 (Sept. 4, 2024) [IF: 48.5, IF at the year of publication: 48.5, cited by: 35]

* co-first author

5. Kang*, J. B., A. Raveane*, A. Nathan, N. Soranzo & S. Raychaudhuri. **Methods and Insights from Single-Cell Expression Quantitative Trait Loci.** *Annual Review of Genomics and Human Genetics* 24 (2023) [IF: 7.9, IF at the year of publication: 6.4, cited by: 34]
* co-first author
6. Mutti, G., G. Oteo-Garcia, M. Caldon, M. J. F. da Silva, T. Minhós, G. Cowlshaw, D. Gottelli, E. Huchard, A. Carter, F. I. Martinez, A. Raveane & C. Capelli. **Assessing the recovery of Y chromosome microsatellites with population genomic data using *Papio* and *Theropithecus* genomes.** *Scientific Reports* 13, 13839 (Aug. 24, 2023) [IF: 3.9, IF at the year of publication: 4.6, cited by: 6]
7. Capodiferro, M. R., A. M. C. Osorio, N. R. Migliore, D. H. T. Tineo, A. Raveane, C. Xavier, M. Bodner, F. Simão, L. Ongaro, F. Montinaro, J. Lindo, E. Huerta-Sanchez, G. Politis, C. Barbieri, W. Parson, L. Gusmão & A. Achilli. **The multifaceted genomic history of *Ashaninka* from Amazonian Peru.** *Current Biology* 33, 1573–1581.e5 (Apr. 24, 2023) [IF: 7.5, IF at the year of publication: 7.5, cited by: 1]
8. Cortellino, S., A. Raveane, C. Chiodoni, G. Delfanti, F. Pisati, V. Spagnolo, E. Visco, G. Fragale, F. Ferrante, S. Magni, F. Iannelli, F. Zanardi, G. Casorati, F. Bertolini, P. Dellabona, M. P. Colombo, C. Tripodo & V. D. Longo. **Fasting renders immunotherapy effective against low-immunogenic breast cancer while reducing side effects.** *Cell Reports* 40 (Aug. 23, 2022) [IF: 6.9, IF at the year of publication: 8.8, cited by: 59]
9. Raveane, A., L. Molinaro, S. Aneli, M. R. Capodiferro, L. de Gennaro, L. Ongaro, N. Rambaldi Migliore, S. Soffiati, T. Scarano, A. Torroni, A. Achilli, M. Ventura, L. Pagani, C. Capelli, A. Olivieri, F. Bertolini, O. Semino & F. Montinaro. **Assessing temporal and geographic contacts across the Adriatic Sea through the analysis of genome-wide data from Southern Italy.** *Genomics* 114, 110405 (July 1, 2022) [IF: 3.0, IF at the year of publication: 4.4, cited by: 5]
10. Santander, C., L. Molinaro, G. Mutti, F. I. Martínez, J. Mathe, M. J. Ferreira da Silva, M. Caldon, G. Oteo-Garcia, V. Aldeias, W. Archer, M. Bamford, D. Biro, R. Bobe, D. R. Braun, P. Hammond, T. Lüdecke, M. J. Pinto, L. Meira Paulo, M. Stalmans, F. T. Regala, F. Bertolini, I. Moltke, A. Raveane, L. Pagani, S. Carvalho & C. Capelli. **Genomic variation in baboons from central Mozambique unveils complex evolutionary relationships with other *Papio* species.** *BMC Ecology and Evolution* 22, 44 (Apr. 11, 2022) [IF: 2.6, IF at the year of publication: 2.6, cited by: 15]
11. Pagano, A., C. Gualtieri, G. Mutti, A. Raveane, F. Sincinelli, O. Semino, A. Balestrazzi & A. Macovei. **Identification and Characterization of SOG1 (Suppressor of Gamma Response 1) Homologues in Plants Using Data Mining Resources and Gene Expression Profiling.** *Genes* 13, 667 (Apr. 2022) [IF: 2.8, IF at the year of publication: 4.1, cited by: 10]
12. Carpen, L., P. Falvo, S. Orecchioni, G. Mitola, R. Hillje, S. Mazzara, P. Mancuso, S. Pileri, A. Raveane* & F. Bertolini*. **A single-cell transcriptomic landscape of innate and adaptive intratumoral immunity in triple negative breast cancer during chemo- and immunotherapies.** *Cell Death Discovery* 8, 1–9 (Mar. 8, 2022) [IF: 7.0, IF at the year of publication: 6.58, cited by: 26]
* co-last author and corresponding
13. Aneli, S., T. Saupe, F. Montinaro, A. Solnik, L. Molinaro, C. Scaggion, N. Carrara, A. Raveane, T. Kivisild, M. Metspalu, C. L. Scheib & L. Pagani. **The genetic origin of Daunians and the Pan-Mediterranean southern Italian Iron Age context.** *Molecular Biology and Evolution*, msac014 (Jan. 17, 2022) [IF: 5.3, IF at the year of publication: 10.7, cited by: 27]
14. Colombo, G., L. Traverso, L. Mazzocchi, V. Grugni, N. Rambaldi Migliore, M. R. Capodiferro, G. Lombardo, R. Flores, M. Karmin, S. Rootsi, L. Ferretti, A. Olivieri, A. Torroni, R. Martiniano, A. Achilli, A. Raveane* & O. Semino*. **Overview of the Americas' First Peopling from a Patrilineal Perspective: New Evidence from the Southern Continent.** *Genes* 13, 220 (Feb. 2022) [IF: 2.8, IF at the year of publication: 4.1, cited by: 9]
* co-last author and corresponding
15. Rambaldi Migliore, N., G. Colombo, M. R. Capodiferro, L. Mazzocchi, A. M. Chero Osorio, A. Raveane,

- M. Tribaldos, U. A. Perego, T. Mendizábal, A. G. Montón, G. Lombardo, V. Grugni, M. Garofalo, L. Ferretti, C. Cereda, S. Gagliardi, R. Cooke, N. Smith-Guzmán, A. Olivieri, B. Aram, A. Torroni, J. Motta, O. Semino & A. Achilli. **Weaving Mitochondrial DNA and Y-Chromosome Variation in the Panamanian Genetic Canvas.** *Genes* **12**, 1921 (Dec. 2021) [IF: 2.8, IF at the year of publication: 4.1, cited by: 8]
16. Roma, S., L. Carpen, A. Raveane* & F. Bertolini*. **The Dual Role of Innate Lymphoid and Natural Killer Cells in Cancer. from Phenotype to Single-Cell Transcriptomics, Functions and Clinical Uses.** *Cancers* **13**, 5042 (Nov. 14, 2021) [IF: 4.4, IF at the year of publication: 4.4, IF at the year of publication: 6.6, cited by: 18]
* co-last author
 17. Ferreira, J. C., F. Alshamali, F. Montinaro, B. Cavadas, A. Torroni, L. Pereira, A. Raveane & V. Fernandes. **Projecting Ancient Ancestry in Modern-Day Arabians and Iranians: A Key Role of the Past Exposed Arabo-Persian Gulf on Human Migrations.** *Genome Biology and Evolution* (evab194 Sept. 4, 2021) [IF: 2.4, IF at the year of publication: 4.1, cited by: 14]
 18. Falvo*, P., S. Orecchioni*, A. Raveane*, G. Mitola & F. Bertolini. **A "Two-Hit" (Chemo)Therapy to Improve Checkpoint Inhibition in Cancer.** *Oncoscience* **8**, 55–57 (May 7, 2021) [IF: 1.7, IF at the year of publication: 1.5, cited by: 7]
* co-first author
 19. Capodiferro, M. R., B. Aram, A. Raveane, N. Rambaldi Migliore, G. Colombo, L. Ongaro, J. Rivera, T. Mendizábal, I. Hernández-Mora, M. Tribaldos, U. A. Perego, H. Li, C. L. Scheib, A. Modi, A. Gómez-Carballa, V. Grugni, G. Lombardo, G. Hellenthal, J. M. Pascale, F. Bertolini, G. S. Grieco, C. Cereda, M. Lari, D. Caramelli, L. Pagani, M. Metspalu, R. Friedrich, C. Knipper, A. Olivieri, A. Salas, R. Cooke, F. Montinaro, J. Motta, A. Torroni, J. G. Martín, O. Semino, R. S. Malhi & A. Achilli. **Archaeogenomic Distinctiveness of the Isthmo-Colombian Area.** *Cell* **184**, 1706–1723.e24 (Apr. 1, 2021) [IF: 42.5, IF at the year of publication: 66.9, cited by: 61]
 20. Falvo, P., S. Orecchioni, R. Hillje, A. Raveane, P. Mancuso, C. Camisaschi, L. Luzi, P. Pelicci & F. Bertolini. **Cyclophosphamide and Vinorelbine Activate Stem-Like CD8+ T Cells and Improve Anti-PD-1 Efficacy in Triple-Negative Breast Cancer.** *Cancer Res* **81**, 685–697 (Feb. 1, 2021) [IF: 16.6, IF at the year of publication: 13.3, cited by: 51]
 21. Mutti*, G., A. Raveane†*, A. Pagano, F. Bertolini, O. Semino, A. Balestrazzi & A. Macovei†. **Plant TDP1 (Tyrosyl-DNA Phosphodiesterase 1): A Phylogenetic Perspective and Gene Expression Data Mining.** *Genes* **11**, 1465 (12 Dec. 2, 2020) [IF: 2.8, IF at the year of publication: 3.8, cited by: 7]
* co-first author and †corresponding
 22. Falvo*, P., S. Orecchioni*, S. Roma*, A. Raveane* & F. Bertolini. **Drug Repurposing in Oncology, an Attractive Opportunity for Novel Combinatorial Regimens.** *Current Medicinal Chemistry* **27**, 1–23 (Sept. 1, 2020) [IF: 3.5, IF at the year of publication: 4.5, cited by: 8]
* co-first author
 23. Mancuso, P., A. Gidaro, G. Gregato, A. Raveane, P. Cremonesi, J. Quarna, S. Caccia, L. Gusso, S. Rusconi, A. Giacomelli, C. Cogliati & F. Bertolini. **Circulating Endothelial Progenitors Are Increased in COVID-19 Patients and Correlate with SARS-CoV-2 RNA in Severe Cases.** *Journal of Thrombosis and Haemostasis* **18**, 2744–2750 (Aug. 6, 2020) [IF: 5.0, IF at the year of publication: 4.5, cited by: 50]
 24. Modi, A., H. Lancioni, I. Cardinali, M. R. Capodiferro, N. Rambaldi Migliore, A. Hussein, C. Strobl, M. Bodner, L. Schnaller, C. Xavier, E. Rizzi, L. Bonomi Ponzi, S. Vai, A. Raveane, B. Cavadas, O. Semino, A. Torroni, A. Olivieri, M. Lari, L. Pereira, W. Parson, D. Caramelli & A. Achilli. **The Mitogenome Portrait of Umbria in Central Italy as Depicted by Contemporary Inhabitants and Pre-Roman Remains.** *Scientific Reports* **10**, 10700 (July 1, 2020) [IF: 3.9, IF at the year of publication: 4.4, cited by: 23]
 25. Ongaro, L., M. O. Scliar, R. Flores, A. Raveane, D. Marnetto, S. Sarno, G. A. Gnecci-Ruscone, M. E. Alarcón-Riquelme, E. Patin, P. Wangkumhang, G. Hellenthal, M. Gonzalez-Santos, R. J. King, A. Kouvatsi,

- O. Balanovsky, E. Balanovska, L. Atramentova, S. Turdikulova, S. Mastana, D. Marjanovic, L. Mulahasanovic, A. Leskovac, M. F. Lima-Costa, A. C. Pereira, M. L. Barreto, B. L. Horta, N. Mabunda, C. A. May, A. Moreno-Estrada, A. Achilli, A. Olivieri, O. Semino, K. Tambets, T. Kivisild, D. Luiselli, A. Torroni, C. Capelli, E. Tarazona-Santos, M. Metspalu, L. Pagani & F. Montinaro. **The Genomic Impact of European Colonization of the Americas.** *Current Biology* **29**, 3974–3986.e4 (Dec. 2, 2019) [IF: 7.5, IF at the year of publication: 9.1, cited by: 119]
26. Grugni, V., A. Raveane, G. Colombo, C. Nici, F. Crobu, L. Ongaro, V. Battaglia, D. Sanna, N. Al-Zahery, O. Fiorani, A. Lisa, L. Ferretti, A. Achilli, A. Olivieri, P. Francalacci, A. Piazza, A. Torroni & O. Semino. **Y-Chromosome and Surname Analyses for Reconstructing Past Population Structures: The Sardinian Population as a Test Case.** *International Journal of Molecular Sciences* **20**, 5763 (Nov. 16, 2019) [IF: 4.9, IF at the year of publication: 4.6, cited by: 11]
27. Tamm, E., J. Di Cristofaro, S. Mazières, E. Pennarun, A. Kushniarevich, A. Raveane, O. Semino, J. Chiaroni, L. Pereira, M. Metspalu & F. Montinaro. **Genome-Wide Analysis of Corsican Population Reveals a Close Affinity with Northern and Central Italy.** *Scientific Reports* **9**, 13581 (Sept. 19, 2019) [IF: 3.9, IF at the year of publication: 3.9, cited by: 14]
28. Raveane†*, A., S. Aneli†*, F. Montinaro†*, G. Athanasiadis, S. Barlera, G. Birolo, G. Boncoraglio, A. M. D. Blasio, C. D. Gaetano, L. Pagani, S. Parolo, P. Paschou, A. Piazza, G. Stamatoyannopoulos, A. Angius, N. Brucato, F. Cucca, G. Hellenthal, A. Mulas, M. Peyret-Guzzon, M. Zoledziewska, A. Baali, C. Bycroft, M. Cherkaoui, J. Chiaroni, J. D. Cristofaro, C. Dina, J. M. Dugoujon, P. Galan, J. Giemza, T. Kivisild, S. Mazieres, M. Melhaoui, M. Metspalu, S. Myers, L. Pereira, F. X. Ricaut, F. Brisighelli, I. Cardinali, V. Grugni, H. Lancioni, V. L. Pascali, A. Torroni, O. Semino, G. Matullo, A. Achilli, A. Olivieri & C. Capelli†. **Population Structure of Modern-Day Italians Reveals Patterns of Ancient and Archaic Ancestries in Southern Europe.** *Science Advances* **5**, eaaw3492 (Sept. 4, 2019) [IF: 12.5, IF at the year of publication: 13.1, cited by: 76]
* co-first author and †corresponding
29. Perego, U. A., M. Bodner, A. Raveane, S. R. Woodward, F. Montinaro, W. Parson & A. Achilli. **Resolving a 150-Year-Old Paternity Case in Mormon History Using DTC Autosomal DNA Testing of Distant Relatives.** *Forensic Science International: Genetics* **42**, 1–7 (June 1, 2019) [IF: 3.1, IF at the year of publication: 4.9, cited by: 16]
30. Grugni*, V., A. Raveane*, L. Ongaro, V. Battaglia, B. Trombetta, G. Colombo, M. R. Capodiferro, A. Olivieri, A. Achilli, U. A. Perego, J. Motta, M. Tribaldos, S. R. Woodward, L. Ferretti, F. Cruciani, A. Torroni & O. Semino. **Analysis of the Human Y-Chromosome Haplogroup Q Characterizes Ancient Population Movements in Eurasia and the Americas.** *BMC Biology* **17**, 3 (Jan. 24, 2019) [IF: 6.9, IF at the year of publication: 6.8, cited by: 71]
* co-first author
31. Grugni, V., A. Raveane, F. Mattioli, V. Battaglia, C. Sala, D. Toniolo, L. Ferretti, R. Gardella, A. Achilli, A. Olivieri, A. Torroni, G. Passarino & O. Semino. **Reconstructing the Genetic History of Italians: New Insights from a Male (Y-Chromosome) Perspective.** *Annals of Human Biology* **45**, 44–56 (Jan. 2, 2018) [IF: 1.3, IF at the year of publication: 1.4, cited by: 29]
32. Balanovsky, O., V. Gurianov, V. Zaporozhchenko, O. Balaganskaya, V. Urasin, M. Zhabagin, V. Grugni, R. Canada, N. Al-Zahery, A. Raveane, S.-Q. Wen, S. Yan, X. Wang, P. Zalloua, A. Marafi, S. Koshel, O. Semino, C. Tyler-Smith & E. Balanovska. **Phylogeography of Human Y-Chromosome Haplogroup Q3-L275 from an Academic/Citizen Science Collaboration.** *BMC Evol Biol* **17**, 18 (Feb. 7, 2017) [IF: 3.0, IF at the year of publication: 3.0, cited by: 29]
33. Grugni, V., V. Battaglia, U. A. Perego, A. Raveane, H. Lancioni, A. Olivieri, L. Ferretti, S. R. Woodward, J. M. Pascale, R. Cooke, N. Myres, J. Motta, A. Torroni, A. Achilli & O. Semino. **Exploring the Y Chromosomal Ancestry of Modern Panamanians.** *PLOS ONE* **10**, e0144223 (Dec. 4, 2015) [IF: 2.6, IF at the year of publication: 3.0, cited by: 31]

ORAL COMMUNICATIONS (AS INVITED SPEAKER)

Seminar with the title “One, No One, and One Hundred Thousand, the genomes of Italy” at the Faculty of Medical Sciences, University of Groningen, Groningen, The Netherlands. (4 April 2023) (invited by Marc J. Bonder).

Seminar on the career development of alumni of the EMBO POPGEN Practical Course. EMBO POPGEN Practical Course, Procida (13-19 March 2023) (invited by Prof. Vincenza Colonna, University of Tennessee).

Seminar with the title “One, No One, and One Hundred Thousand, the genomes of Italy” at the Dept. of Genetics at the Smurfit Institute of Genetics at the Trinity College, Dublin, Ireland (06 December 2022) (invited by Prof. Lara Cassidy, Trinity College).

Seminar with the title “Histories in each of us” at the Neurogenetics class of the Psychology, Neuroscience and Human Sciences master degree at the University of Pavia, Italy (28 October 2022) (invited by Prof. Andrea Cortese, University of Pavia, University College of London).

Seminar with the title “Single-cell RNA Applications on Breast Cancer Mouse Models” at the the Genomics and Transcriptomics class of the Bioinformatics for Computational Genomics master degree at the University of Milan, Italy (10 June 2021) (invited by Prof. Giulio Pavesi, University of Milan).

ORAL COMMUNICATIONS (AS SELECTED SPEAKER)

A. Raveane, M. Ozols, S. Watt, J. P. Engelmann, O. Dufva, S. Li, A. Landini, S. Sharapov, B. Ariano, P. Benaglio, G. Clerici, A. Cristea, M. Tardaguila, D. Zanotti, E. Holtkamp, M. Mück, A. Senacheribbe, M. Saraswat, D. Vagiaki, T. H. Heng, H. Martin, F. J. Theis, S. A. Teichmann, D. A. van Heel, D. Bolognini, F. P. Casale, E. Giacomuzzi, V. Iyer, B. Clarke, F. Curion, N. Pirastu, M. J. Bonder, O. Stegle, N. Soranzo. **The Cardinal study: A new population-scale single-cell resource for immune genetics.** European Society of Human Genetics (ESHG2025). 24-27 May 2025. (Oral presentation in the symposium: Decoding complex traits through molecular intermediates)

A. Raveane, A. Cristea, E. Giacomuzzi, D. Bolognini, M. C. Massi, A. Senacheribbe, N. Pirastu, M. Ozols, V. Iyer, F. Ieva, O. Stegle, M. J. Bonder, F. Montinaro, N. Soranzo. **The influence of ancient ancestries on the immunological landscape of present-day Europeans.** Society of Molecular Biology and Evolution (SMBE23). 24-27 July 2023. (Oral presentation in the symposium Evolutionary biology through a functional genomics lens)

A. Raveane *, S. Aneli *, F. Montinaro *, G. Athanasiadis, S. Barlera, G. Birolo, G. Boncoraglio, AM. Di Blasio, C. Di Gaetano, L. Pagani, S. Parolo, P. Paschou, A. Piazza, G. Stamatoyannopoulos, A. Angius, N. Brucato, F. Cucca, G. Hellenthal, A. Mulas, M. Peyret-Guzzon, M. Zoledziewska, A. Baali, C. Bycroft, M. Cherkaoui, C. Dina, JM. Dugoujon, P. Galan, J. Gienza, T. Kivisild, M. Melhaoui, M. Metspalu, S. Myers, L. Pereira, FX. Ricaut, F. Brisighelli, I. Cardinali, V. Grugni, H. Lancioni, V. Pascali, A. Torroni, O. Semino, G. Matullo, A. Achilli, A. Olivieri, C. Capelli. **Population structure of modern-day Italians reveals patterns of ancient and archaic ancestries in Southern Europe.** Conference: Centenary of Human Population Genetics. Moscow, Russia; 29 – 31 May 2019. (Oral presentation). * Co-first author

A. Raveane, M.R. Capodiferro, N. Rambaldi Migliore, V. Grugni, L. Ferretti, A. Olivieri, A. Torroni, A. Achilli, O. Semino, B. Aram, J. Martin, J. Rivera, F. Montinaro, S. Aneli, C. Capelli. **Ancient and modern genomes: new approaches and tools to reconstruct the genetic history of human populations.** Conference: II LIFE SCIENCE 2018. Pavia, Italy; 20-22 June 2018. (Oral Presentation).

A. Raveane, F. Montinaro, S. Aneli, H. Lancioni, A. Mulas, V. Grugni, I. Cardinali, M. Zoledziewska, F. Brisighelli, C. Di Gaetano, S. Guarrera, A. Piazza, V. Pascali, M. Peyret-Guzzon, F. Cucca, A. Angius, A. Torroni, O. Semino, G. Matullo, A. Achilli, A. Olivieri, C. Capelli. **A genome-wide portrait of Italy.** Conference: 1st Joint Annual Symposium of the Departments of Biology and Biotechnology, Molecular Medicine and CNR Institute of Molecular Genetics. Pavia, Italy; 14-15 February 2017. (Oral Presentation).

POSTER COMMUNICATIONS (AS PRESENTER)

A. Raveane, A. Landini, M. C. Massi, M. Ozols, D. Bolognini, A. Senacheribbe, A. Cristea, F. Ieva, V. Iyer, O. Stegle, M. J. Bonder, F. Montinaro, N. Pirastu, N. Soranzo. **The impact of ancient ancestries on present-day European immunity**. Conference: Human Cell Atlas (HCA). Milan, Italy; 29-30 September 2024. (Poster).

A. Raveane, M. C. Massi, A. Landini, D. Bolognini, A. Senacheribbe, A. Cristea, E. Giacomuzzi, M. Ozols, V. Iyer, F. Ieva, O. Stegle, M. J. Bonder, N. Pirastu, F. Montinaro, N. Soranzo. **The influence of ancient ancestries on the immunological landscape of present-day Europeans**. Conference: JOINT MEETING AGI-SIMAG. Cortona (Arezzo, Italy); 14-16 September 2023. (Poster).

A. Raveane, L. Molinaro, M.R. Capodiferro, A. Achilli, A. Olivieri, L. Pagani, A. Torroni, C. Capelli, O. Semino, F. Montinaro. **Southern Italian genomes reveal peculiar ancient genetic signals**. Conference: EMBO | EMBL Symposium: Reconstructing the Human Past (Using Ancient and Modern Genomics). Heidelberg, Germany; 31 March – 3 April 2019. (Poster).

A. Raveane, C. Capelli, F. Montinaro, O. Semino. **The genetic impact of ancient and historical migrations in Southern Italy**. Conference: XV FISV. Rome, Italy; 18-21 September 2018. (Poster).

A. Raveane, S. Aneli, F. Montinaro, G. Athanasiadis, S. Barlera, G. Birolo, G. Boncoraglio, A.M. Di Blasio, C. Di Gaetano, L. Pagani, S. Parolo, P. Paschou, A. Piazza, G. Stamatoyannopoulos, A. Angius, N. Brucato, F. Cucca, G. Hellenthal, A. Mulas, M. Peyret-Guzzon, M. Zoledziewska, A. Baali, C. Bycroft, M. Cherkaoui, C. Dina, J.M. Dugoujon, P. Galan, J. Gienza, T. Kivisild, M. Melhaoui, M. Metspalu, S. Myers, L. Pereira, F.X. Ricaut, F. Brisighelli, I. Cardinali, V. Grugni, H. Lancioni, V. Pascali, A. Torroni, O. Semino, G. Matullo, A. Achilli, A. Olivieri, C. Capelli. **The role of recent influences on the genetic structure of Italian populations**. Course: Population Genomics: background and tools. Napoli, Italy; 21-27 April 2018. (Poster).

A. Raveane, F. Montinaro, H. Lancioni, A. Mulas, V. Grugni, I. Cardinali, M. Zoledziewska, S. Aneli, A. Baali, S. Barlera, G. Boncoraglio, F. Brisighelli, A.M. Di Blasio, M. Cherkaoui, C. Di Gaetano, J.M. Dugoujon, S. Guerrera, T. Kivisild, M. Melhaoui, L. Pagani, S. Parolo, P. Paschou, A. Piazza, V. Pascali, M. Peyret-Guzzon, F.X. Ricaut, G. Stamatoyannopoulos, F. Cucca, A. Angius, A. Torroni, M. Metspalu, O. Semino, G. Hellenthal, G. Matullo*, A. Achilli, A. Olivieri, C. Capelli. **A genome-wide portrait of Italy**. Conference: XIV FISV. Rome, Italy; 20-23 September 2016. (Poster).

A. Raveane, V. Grugni, V. Battaglia, B. Trombetta, O. Semino. **The peopling of South America: new information from the phylogenetic refinement of human Y-chromosome haplogroup Q**. Conference: SBE Satellite-Meeting on the Genetics of the Admixed Population. San Antonio, USA; 18-20 May 2016. (Poster).

CONFERENCE COMMUNICATIONS (AS CO-AUTHOR OR PRINCIPAL INVESTIGATOR)

E. Giacomuzzi, A. Raveane, D. Bolognini, M. Ozols, S. Watt, A. Fuentes-Trillo, S. Scala, L. Seffin, C. Dominguez Conde, N. Soranzo, M. Tardaguila. **Transcript level quantification and splice junction detection in single-cell short-read expression data**. Conference: European Society of Human Genetics (ESHG25). Milan, Italy; 24-27 May 2025. (Poster).

A. Landini, S. Sharapov, A. Raveane, M. Ozols, S. Watt, M. J. Bonder, O. Stegle, N. Soranzo, N. Pirastu. **FinemappInG And pleiotropy solver (FIGARO) pipeline for disentangling pleiotropy of large datasets**. Conference: European Society of Human Genetics (ESHG25). Milan, Italy; 24-27 May 2025. (Poster).

S. Sharapov, A. Landini, A. Raveane, M. Ozols, S. Watt, M. J. Bonder, O. Stegle, N. Soranzo. **Single-cell genomics data predicts the success of clinical trials and facilitates drug repurposing**. . Conference: European Society of Human Genetics (ESHG25). Milan, Italy; 24-27 May 2025. (Poster).

D. Zanotti, A. Raveane, A. Landini, M. Ozols, S. Watt, S. Li, O. Dufva, F. Ieva, S. A. Teichmann, O. Stegle, N. Pirastu, N. Soranzo. **Integrating single-cell and population-scale data to explore immune cell type variation and disease associations**. Conference: European Society of Human Genetics (ESHG25). Milan, Italy; 24-27 May 2025. (Poster).

D. Bolognini, A. Raveane, A. Guarracino, E. Garrison, P. H. Sudmant, N. Soranzo. **Pangenome-based inference of structurally-complex haplotypes from short-read data**. Conference: European Society of Human Genetics (ESHG25). Milan, Italy; 24-27 May 2025. (Poster).

A. Cristea, A. Raveane, A. Landini, M. Ozols, S. B. Watt, O. Stegle, D. van Heel, N. Pirastu, N. Soranzo. **Unraveling the**

role of loss of function variants in autozygous segments: insights into gene expression and disease mechanisms

. Conference: European Society of Human Genetics (ESHG25). Milan, Italy; 24-27 May 2025. (Poster).

D. Bolognini, A. Raveane, E. Garrison, P. H. Sudmant, N. Soranzo. **Pangenome-based inference of structurally complex haplotypes from short-read data**. Conference: JOINT MEETING AGI-SIMAG. Cortona (Arezzo, Italy); 14-16 September 2023. (Poster).

L. de Gennaro, L. Molinaro, A. Raveane, L. Pagani, T. Kivisild, F. Santonastaso, M. Ventura, F. Montinaro. **ASAP - ASsessing Ancestry through Principal component analysis**. Conference: JOINT MEETING AGI-SIMAG. Cortona (Arezzo, Italy); 14-16 September 2023. (Poster).

G. Colombo, L. Traverso, L. Mazzocchi, V. Grugni, N. Rambaldi Migliore, M. R. Capodiferro, G. Lombardo, A. M. Chero Osorio, R. Flores, M. Karmin, S. Rootsi, U. A. Perego, L. Ferretti, A. Olivieri, A. Torroni, A. Achilli, R. Martiniano, A. Raveane*, O. Semino*. **A patrilineal overview of the Americas' first peopling**. Virtual Conference: Associazione Genetica Italiana (A.G.I.) 22-24 September 2021. (Poster).

* co-last author

Capodiferro MR, B. Aram, A. Raveane, N. Rambaldi Migliore, G. Colombo, L. Ongaro, J. Rivera, T. Mendizábal, I. Hernández-Mora, M. Tribaldos, UA. Perego, H. Li, Hongjie, C. Scheib, A. Modi, A. Gómez-Carballa, V. Grugni, G. Lombardo, G. Hellenthal, JM. Pascale, F. Bertolini, GS. Grieco, C. Cereda, M. Lari, D. Caramelli, L. Pagani, M. Metspalu, R. Friedrich, C. Knipper, A. Olivieri, A. Salas, R. Cooke, F. Montinaro, J. Motta, A. Torroni, JG Martín, O. Semino, RS. Malhi, A. Achilli. **An archaeogenomic journey in Panama**. Virtual Conference: A.G.I. 22-24 September 2021. (Poster).

N. Rambaldi Migliore, G. Colombo, MR Capodiferro, A. M. Chero Osorio, L. Mazzocchi, A. Raveane, G. Lombardo, M. Tribaldos, U. A. Perego, V. Grugni, T. Mendizábal, N. Smith-Guzmán, L. Ferretti, M. Garofalo, C. Cereda, S. Gagliardi, R. Cooke, A. Olivieri, B. Aram, A. Torroni, J. Motta, O. Semino, A. Achilli. **Weaving Y chromosome and mitochondrial DNA variations in the Panamanian genetic canvas**. Virtual Conference: A.G.I. 22-24 September 2021. (Poster).

P. Falvo, S. Orecchioni, R. Hillje, A. Raveane, G. Mitola, P. Mancuso, C. Camisaschi, L. Luzi, PG. Pelicci, F. Bertolini. **A single-cell atlas of the effect of chemotherapeutics over intratumoral immune cells reveals that combining an alkylating agent and a vinca alkaloid can activate antigen presenting cells and increase tcf1+ stem-like CD8+ T-cells, thus improving anti-PD-1 efficacy in triple negative breast cancer and lymphoma**. Virtual Conference: AACR Annual Meeting 2021. Philadelphia, USA; 10-15 April 2021 e 17-21 May 2021. (Poster).

P. Falvo, S. Orecchioni, R. Hillje, A. Raveane, P. Mancuso, C. Camisaschi, L. Luzi, F. Bertolini. **Intermittent cyclophosphamide and vinorelbine reshape the immune cell environment, induce T cell clonal replacement and increase the efficacy of PD-1 inhibition in models of triple negative breast cancer**. Virtual Conference: AACR Annual Meeting 2020. Philadelphia, USA; 27-28 April 2020 e 22-24 June 2020. (Poster).

A. Raveane*, S. Aneli *, F. Montinaro *, S. Barlera, G. Birolo, G. Boncoraglio, AM. Di Blasio, C. Di Gaetano, L. Pagani, S. Parolo, P. Paschou, A. Angius, N. Brucato, F. Cucca, G. Hellenthal, A. Mulas, M. Peyret-Guzzon, M. Zoledziewska, T. Kivisild, M. Metspalu, S. Myers, F. Brisighelli, I. Cardinali, V. Grugni, H. Lancioni, V. L. Pascali, A. Torroni, O. Semino, G. Matullo, A. Achilli, A. Olivieri, C. Capelli. **Population structure of modern-day Italians reveals patterns of ancient and archaic ancestries in Southern Europe**. Conference: XXII Congresso Nazionale SIGU. Rome, Italy; 13-16 November 2019. (Poster - Awarded as best poster to S. Aneli).

* co-first author

H. Lancioni, A. Modi, I. Cardinali, M.R. Capodiferro, N. Rambaldi Migliore, A. Hussein, C. Strobl, L. Schnaller, M. Bodner, S. Vai, A. Raveane, B. Cavadas, O. Semino, A. Torroni, A. Olivieri, M. Lari, L. Pereira, W. Parson, D. Caramelli, A. Achilli. **The mitogenome portrait of the "heart of Italy" depicted by modern Umbrians and pre-Roman remains**. Conference: JOINT MEETING A.G.I.-S.I.M.A.G. Cortona, Italy; 26-28 September 2019. (Poster).

L. Ongaro, M. Scliar, R. Flores, A. Raveane, D. Marnetto, S. Sarno, G. A. Gnecci-Ruscione, M. E. Alarco'n-Riquelme, E. Patin, P. Wangkumhang, G. Hellenthal, M. Gonzalez-Santos, R. J. King, A. Kouvatsi, O. Balanovsky, E. Balanovska, L. Atramentova, S. Turdikulova, S. Mastana, D. Marjanovic, L. Mulahasanovic, A. Leskovic, M. F. Lima-Costa, A. C. Pereira, M. L. Barreto, B. L. Horta, N. Mabunda, C. A. May, A. Moreno-Estrada, A. Achilli, A. Olivieri, O. Semino, K.

Tambets, T. Kivisild, D. Luiselli, A. Torroni, C. Capelli, E. Tarazona-Santos, M. Metspalu, L. Pagani, F. Montinaro. **The Genomic Impact of European Colonization of the Americas**. Conference: Antropology what are the next questions? Associazione Antropologica Italiana (A.A.I.) Padua, Italy; 4-6 September 2019. (Oral Communication- L. Ongaro).

V. Grugni*, A. Raveane*, L. Ongaro, V. Battaglia, B. Trombetta, A. Olivieri, U.A. Perego, A. Achilli, F. Cruciani, A. Torroni, O. Semino. **The first peopling of Americas: new insights on the Y chromosome haplogroup Q**. Conference: Centenary of Human Population Genetics. Moscow, Russia; 29 - 31 May 2019. (Invited Speaker - O. Semino).

* Co-first author

L. Ongaro, M. Scliar, R. Flores, A. Raveane, D. Marnetto, S. Sarno, G. A. Gneccchi-Ruscione, M. E. Alarco'n-Riquelme, E. Patin, P. Wangkumhang, G. Hellenthal, M. Gonzalez-Santos, R. J. King, A. Kouvatsi, O. Balanovsky, E. Balanovska, L. Atramentova, S. Turdikulova, S. Mastana, D. Marjanovic, L. Mulahasanovic, A. Leskovac, M. F. Lima-Costa, A. C. Pereira, M. L. Barreto, B. L. Horta, N. Mabunda, C. A. May, A. Moreno-Estrada, A. Achilli, A. Olivieri, O. Semino, K. Tambets, T. Kivisild, D. Luiselli, A. Torroni, C. Capelli, E. Tarazona-Santos, M. Metspalu, L. Pagani, F. Montinaro. **The Genomic Impact of European Colonization of the Americas**. Conference: Centenary of Human Population Genetics. Moscow, Russia; 29 - 31 May 2019. (Poster).

M. R. Capodiferro, A. Raveane, N. Rambaldi Migliore, G. Colombo, H. Li, C.L. Scheib, A. Modi, F. Montinaro, J. Riviera, U.A. Perego, I. Hernández-Mora, T. Mendizábal, C. Knipper, M. Metspalu, R. Cooke, M. Lari, L. Pagani, D. Caramelli, A. Torroni, A. Olivieri, J. Martin, O. Semino, Ripan S. Malhi, B. Aram, A. Achilli. **Exploring the genetic history of Panamanians through ancient genomes**. Corso: EMBO | Population genomics: Background, tools and programming 2019. Procida, Italy; 30 March -6 April 2019. (Poster).

A. Raveane*, S. Aneli*, F. Montinaro*, G. Athanasiadis, S. Barlera, G. Birolo, G. Boncoraglio, AM. Di Blasio, C. Di Gaetano, L. Pagani, S. Parolo, P. Paschou, A. Piazza, G. Stamatoyannopoulos, A. Angius, N. Brucato, F. Cucca, G. Hellenthal, A. Mulas, M. Peyret-Guzzon, M. Zoledziewska, A. Baali, C. Bycroft, M. Cherkaoui, C. Dina, JM. Dugoujon, P. Galan, J. Gienza, T. Kivisild, M. Melhaoui, M. Metspalu, S. Myers, L. Pereira, FX. Ricaut, F. Brisighelli, I. Cardinali, V. Grugni, H. Lancioni, V. Pascali, A. Torroni, O. Semino, G. Matullo, A. Achilli, A. Olivieri, C. Capelli. **Population structure of modern-day Italians reveals patterns of ancient ancestries in Southern Europe**. Conference: EMBO | EMBL Symposium: Reconstructing the Human Past (Using Ancient and Modern Genomics). Heidelberg, Germany; 31 March - 3 April 2019. (Oral Communication and Poster - S. Aneli).

* Co-first author

L. Ongaro, F. Montinaro, J.R. Flores-Espinosa, M. Scliar, K. Tambets, A. Raveane, S. Sarno, G.A. Gneccchi-Ruscione, D. Luiselli, M.E. Alarcon-Riquelme, A. Moreno-Estrada, A. Achilli, A. Olivieri, O. Semino, A. Torroni, C. Capelli, E. Tarazona-Santos, L. Pagani, M. Metspalu. **The european heritage of american populations**. Conference: XV FISV. Rome, Italy; 18-21 September 2018. (Oral Communication - L. Ongaro).

N. Rambaldi Migliore, M.R. Capodiferro, M. Tribaldos, A. Modi, U.A. Perego, H. Li, A. Raveane, V. Grugni, G. Colombo, T. Mendizábal, J. Riviera, I. Hernández-Mora, J. Martin, B. Aram, R. Cooke, M. Lari, R.S. Malhi, D. Caramelli, A. Olivieri, A. Torroni, J. Motta, O. Semino, A. Achilli. **Refining the genetic history of Panama through modern and ancient mitogenomes**. Conference: XV FISV. Rome, Italy; 18-21 September 2018. (Poster).

M.R. Capodiferro, A. Raveane, H. Li, C.L. Scheib, A. Modi, F. Montinaro, J. Riviera, U.A. Perego, N. Rambaldi Migliore, I. Hernández-Mora, T. Mendizábal, C. Knipper, M. Metspalu, R. Cooke, M. Lari, L. Pagani, D. Caramelli, A. Torroni, A. Olivieri, J. Martin, O. Semino, Ripan S. Malhi, B. Aram, A. Achilli. **Exploring the genetic history of Panamanians through ancient genomes**. Conference: XV FISV. Rome, Italy; 18-21 September 2018. (Oral Communication - M.R. Capodiferro).

A. Raveane*, S. Aneli*, F. Montinaro*, G. Athanasiadis, S. Barlera, G. Birolo, G. Boncoraglio, AM. Di Blasio, C. Di Gaetano, L. Pagani, S. Parolo, P. Paschou, A. Piazza, G. Stamatoyannopoulos, A. Angius, N. Brucato, F. Cucca, G. Hellenthal, A. Mulas, M. Peyret-Guzzon, M. Zoledziewska, A. Baali, C. Bycroft, M. Cherkaoui, C. Dina, JM. Dugoujon, P. Galan, J. Gienza, T. Kivisild, M. Melhaoui, M. Metspalu, S. Myers, L. Pereira, FX. Ricaut, F. Brisighelli, I. Cardinali, V. Grugni, H. Lancioni, V. Pascali, A. Torroni, O. Semino, G. Matullo, A. Achilli, A. Olivieri, C. Capelli. (2018). **Recent, ancient and archaic genomic signatures in the Italian populations**. Conference: XV FISV. Rome, Italy; 18-21

September 2018. (Invited Speaker - C. Capelli).

* Co-first author

S. Aneli, F. Montinaro, **A. Raveane**, A. Angius, G. Athanasiadis, A. Baali, S. Barlera, G. Boncoraglio, F. Brisighelli, N. Brucato, I. Cardinali, M. Cherkaoui, C. Bycroft, F. Cucca, AM. Di Blasio, C. Di Gaetano, JM. Dugoujon, G. Birolo, V. Grugni, G. Hellenthal, T. Kivisild, H. Lancioni, Melhaoui, M. Metspalu, A. Mulas, S. Myers, L. Pagani, S. Parolo, Pascali, P. Paschou, L. Pereira, Peyret-Guzzon, A. Piazza, F. Ricaut, G. Stamatoyannopoulos G, M. Zoledziewska, A. Torroni, O. Semino, G. Matullo, A. Achilli, A. Olivieri, C. Capelli. **Ancient genomic signatures in the Italian population.** Conference: 15th Annual Meeting of the Bioinformatics Italian Society. Turin, Italy; 27-29 June 2018. (Oral Communication - S. Aneli).

S. Aneli, **A. Raveane**, F. Montinaro, G. Athanasiadis, S. Barlera, G. Birolo, G. Boncoraglio, AM. Di Blasio, C. Di Gaetano, L. Pagani, S. Parolo, P. Paschou, A. Piazza, G. Stamatoyannopoulos, A. Angius, N. Brucato, F. Cucca, G. Hellenthal, A. Mulas, M. Peyret-Guzzon, M. Zoledziewska, A. Baali, C. Bycroft, M. Cherkaoui, C. Dina, JM. Dugoujon, P. Galan, J. Gienza, T. Kivisild, M. Melhaoui, M. Metspalu, S. Myers, L. Pereira, FX. Ricaut, F. Brisighelli, I. Cardinali, V. Grugni, H. Lancioni, V. Pascali, A. Torroni, O. Semino, G. Matullo, A. Achilli, A. Olivieri, C. Capelli. **The genetic legacy of Homo neanderthalensis in Italy and Europe.** Corso: Population Genomics: background and tools. Naples, Italy; 21-27 April 2018. (Poster).

S. Aneli, F. Montinaro, **A. Raveane**, H. Lancioni, A. Mulas, V. Grugni, I. Cardinali, M. Zoledziewska, F. Brisighelli, C. Di Gaetano, S. Guarrera, A. Piazza, V. Pascali, M. Peyret-Guzzon, F. Cucca, A. Angius, A. Torroni, O. Semino, G. Matullo, A. Achilli, A. Olivieri, C. Capelli. **The genetic legacy of Homo neanderthalensis in Italy and Europe.** Conference: Human Evolution: fossils, ancient and modern genomes. Cambridge, UK; 20-22 November 2017. (Poster).

S. Aneli, F. Montinaro, **A. Raveane**, H. Lancioni, A. Mulas, V. Grugni, I. Cardinali, M. Zoledziewska, F. Brisighelli, C. Di Gaetano, S. Guarrera, A. Piazza, V. Pascali, M. Peyret-Guzzon, F. Cucca, A. Angius, A. Torroni, O. Semino, A. Achilli, A. Olivieri, G. Matullo, C. Capelli. **L'eredità genetica di Homo neanderthalensis in Italia ed in Europa.** Conference: XXII Congresso Nazionale SIGU. Naples, Italy; 15-18 November 2017. (Poster).

S. Aneli, F. Montinaro, **A. Raveane**, H. Lancioni, A. Mulas, V. Grugni, I. Cardinali, M. Zoledziewska, F. Brisighelli, C. Di Gaetano, S. Guarrera, A. Piazza, V. Pascali, M. Peyret-Guzzon, F. Cucca, A. Angius, A. Torroni, O. Semino, G. Matullo, A. Achilli, A. Olivieri, C. Capelli. **L'eredità genetica di Homo neanderthalensis in Italia ed in Europa.** Conference: XXII Congresso AAI. Monteporzio Catone, Rome, Italy; 6-8 September 2017. (Oral Communication - S. Aneli).

V. Grugni, **A. Raveane**, L. Ongaro, V. Battaglia, B. Trombetta, A. Olivieri, U.A. Perego, A. Achilli, F. Cruciani, A. Torroni, O. Semino. **The phylogeny of Y-chromosome haplogroup Q-L54: new insights on the first peopling of South America.** Conference: XIV FISV. Rome, Italy; 20-23 September 2016. (Oral Communication - V. Grugni).

I. Sbarsi, P. Bergamaschi, A.L. Cremaschi, M. Guarene, S. Brandini, **A. Raveane**, A. Olivieri, V. Grugni, V. Genovese, B. Romano, O. Semino, A. Torroni, A. Pasi. **Does HLA track down ethnicity and geographical origin? Preliminary data from the Pavia Cord Blood Bank.** Conference: 30th European Immunogenetics and Histocompatibility Conference. From Hippocrates to High Tech Immunogenetics. Kos Island, Greece; 11-14 May 2016. (Poster).

P. Bergamaschi, I. Sbarsi, V. Genovese, S. Brandini, **A. Raveane**, A. Olivieri, V. Grugni, A.L. Cremaschi, M. Guarene, B. Romano, A. Pasi, O. Semino, A. Torroni. **CBBs DNA collections can be successfully used for population studies of mitochondrial DNA and Y-chromosome variation. The Pavia CBB experience.** Conference: 42nd Annual Meeting of the European Society for Blood and Marrow Transplantation. Valencia, Spain; 3-6 April 2016. (Poster).

A. De Gaetano, V. Grugni, S. Bonfiglio, **A. Raveane**, V. Battaglia, A. Achilli, A. Olivieri, O. Semino, L. Ferretti (2015). **Improvement of the bovine Y-chromosome phylogeny through the identification of novel markers.** Conference: A.G.I./S.I.M.A., Cortona, Italy; 28-30 September 2015. (Poster).

R. Abou Khouzam, V. Grugni, **A. Raveane**, M. Marabelli, V. Molinaro, O. Semino, G.N. Ranzani (2015). **The Genetic Basis of Bitter Taste Perception (and its effect on our lifestyle).** Conference: Open Lab at the II international plant

science conference (ipsc), Pavia, Italy; 14-18 September 2015. (Poster).

V. Grugni, V. Battaglia, U.A. Perego, H. Lancioni, M. Tribaldos, A. Olivieri, I. Cardinali, E. Rizzi, **A. Raveane**, S.R. Woodward, J.M. Pascale, R. Cooke, N. Myres, A. Torroni, J. Motta, A. Achilli, O. Semino. **The origin of modern Panamanians: the Y-chromosome perspective**. Conference: XIII FISV. Pisa, Italy; 24-27 September 2014. (Poster).

A. Achilli, V. Battaglia, V. Grugni, U.A. Perego, H. Lancioni, M. Tribaldos, A. Olivieri, I. Cardinali, E. Rizzi, **A. Raveane**, M.R. Capodiferro, S.R. Woodward, J.M. Pascale, R. Cooke, N. Myres, A. Torroni, J. Motta, O. Semino. **Exploring the Y-Chromosome Variation of Modern Panamanians**. Abstr. of the 64th Annual Meeting of the American Society of Human Genetics 2014, San Diego, CA, USA; 18-22 September 2014. (Poster).

R. Abou Khouzam, V. Grugni, **A. Raveane**, M. Marabelli, V. Molinaro, S. Polizzi, G. Morini, O. Semino, G.N. Ranzani. **Bitter taste receptor polymorphisms and colorectal cancer risk**. Conference: XII Congresso A.I.F.E.G. (Associazione Italiana Familiarità ed ereditarietà dei tumori Gastroenterici), Varese, Italy; 16-17 October 2014. (Poster).

PROGRAMMING AND BIOINFORMATIC SKILLS

Advanced programming knowledge: BASH, R, computing in High-Performance Computing (HPC) environment

Intermediate programming knowledge: PYTHON, GIT, LATEX, SNAKEMAKE

LABORATORY SKILLS

Advanced Knowledge: Extraction of nuclear human DNA, DNA quantification, PCR, Electrophoresis, Restriction Length Polymorphism (RFLP) analysis

Intermediate Knowledge: Library preparation for NGS, PBMC extraction from whole blood

OUTREACH

Oral Communications:

- **A. Raveane**. “Uno nessuno e centomila, i genomi dell’Italia”. TEDxPaviaSalon. 22nd January 2022. (<https://www.youtube.com/watch?v=2Y0lj7OLLhc>)
- **A. Raveane**, R. A. Khouzam, I. Salvato, I. Buccini, O. Semino, N. G. Ranzani. **Come la genetica del gusto amaro può influenzare le nostre preferenze alimentari**. Autunno Pavese DOC 65, Pavia, Italy. 22-25 September 2017.
- **A. Raveane**. **Ritratto a DNA dell’Italia**. Pillole di Scienza, Sharper, Pavia, Italy. 25th September 2019.

Online contributions:

A. Raveane, S. Aneli, F. Montinaro, C. Capelli. (10/10/2019). **Un ritratto genetico degli italiani**. (<https://www.scienzainrete.it/articolo/ritratto-genetico-degli-italiani/alessandro-raveane-serena-aneli-francesco-montinaro>) (more than 50.700 reading at 15th November 2021)

Media Coverage of Raveane *et al.*, 2019 *Sci Adv*:

- Television: Interview on national channel RAI 3 TGR Leonardo (31/10/2019) <https://www.rainews.it/tgr/rubriche/leonardo/index.html?/tgr/video/2019/10/ContentItem-ababc1d5-5b42-4e57-96c3-b3c5f375bb73.html>
- website:
 - Italians are interesting people. (Eurogenes Blog, 13/12/2018). (<https://eurogenes.blogspot.com/search?q=raveane>)
 - Nel genoma degli italiani scoperto un nuovo e ignoto quarto gruppo ancestrale. (Il Fatto Quotidiano, 05/09/2019) [https://www.ilfattoquotidiano.it/2019/09/05/nel-genoma-degli-italiani-scoperto-un-nuovo-e-ignoto-quarto-gruppo-ancestrale/5433016/?utm_campaign=scienza&utm_medium=twitter&utm_source=twitter]
 - DA DNA ITALIANI DATI UTILI PER STORIA GENETICA DEGLI EUROPEI. (RTL 102.5, 06/09/2019) (<https://www.rtl.it/notizie/articoli/da-dna-italiani-dati-utili-per-storia-genetica-degli-europei/>)

- Magazines and Newspapers:

- Il dna degli italiani. (Internazionale n.1324 | 13/09/2019)
- Silvia Bencivelli. Gli italiani non esistono, parola di DNA. (le Scienze n.617 | 3/01/2020)

- Podcast:

- Che cosa vuol dire essere italiani, geneticamente (il Post - <https://www.ilpost.it/podcasts/ci-vuole-una-scienza/che-cosa-vuol-dire-essere-italiani-geneticamente/>)

Media Coverage of Bolognini *et al.*, 2024 *Nature*:

- Websites:

- Anna Meldolesi. Le impronte dell'agricoltura nel genoma umano (Le scienze - https://www.lescienze.it/news/2024/09/12/news/agricoltura_genoma-16881301/)
- How Early Humans Evolved to Eat Starch (The New York Times - <https://www.nytimes.com/2024/10/17/science/neanderthals-starch-amylase-genes.html>)
- The evolutionary history of humans' ability to eat starch (NBC News - <https://www.nytimes.com/2024/10/17/science/neanderthals-starch-amylase-genes.html>)

Milan, April 20, 2026

